

# THE INCITER.

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Surround us favourably for acquiring knowledge; dispense with unnatural classification; remove the causes which prevent us from loving as brothers; and we will begin A NEW ERA IN SOCIETY.—*Rising Generation.*

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## EDITORIAL.

### TO PARENTS.

#### Misrepresentation and Deception.

There is not a habit of more importance in every stage and scene of life than that of strict adherence to truth. Though no one fails to discern, or is backward to reprehend gross lying; few, it may be feared, are sufficiently careful in guarding against those slight aberrations from truth, which lead directly to it.

Could a parent hope that his child would be an economist, however highly he might extol his economy, however his example might comport with his precepts in large matters, if in small ones he were wasteful and negligent? If he be even niggardly with barrels of flour, or dollars, but wasteful and indifferent with handsful and cents, and encouraged his son to be so, should he accumulate, it must be attributed to something distinct from economy. Just so it is with truth, we need not expect to find the love of it, unless due value be attached to it in small portions.

Is the course pursued in very infancy calculated to inspire the young mind with regard for truth? Is not the infant told if he puts his hand into the saucer of hot coffee that the bird, dog or cat which he sees pictured at the bottom, will bite him? Is he not told, now that the naughty table, chair &c. which has hurt him has been beaten it will not repeat the injury? To say nothing of the revengeful feeling which such a course tends to promote, it must so far as it has any effect, prevent the proper distinction in the young mind between truth and its opposite.

However convenient parents or nurses

may find it to misrepresent to answer some present purpose, and however little importance they may attach to the consequences of deception and misrepresentation at so early a period, observation and reflection would change their opinions; they would perceive that "Little things are great to little minds."

A story is related of a child who would not permit the surgeon's instrument to enter his mouth for the extraction of his tooth. When reasoning and persuasion had been unsuccessfully resorted to, the surgeon desired to see the tooth, to rub it with his handkerchief, and hoped it would supersede the necessity of extraction. The child had no objection to this; and while the operator professed to be rubbing the tooth, he was adjusting the instrument, which he had previously concealed beneath the handkerchief. The tooth was extracted and a physical benefit derived; it is a question well worth investigating, whether the loss in a moral point of view, was not more than equivalent.

"Take it my dear," said a fond mother to her little son, to whom she was endeavoring to administer some nauseous medicine, "Take it, it does not taste bad at all; I would take any quantity of it." The child did not believe her; he had heard the same tale before; she had abused his confidence, and of course had lost it. A bystander took the cup containing the bitter draught,—he tasted it—he said it was very ill-tasted, indeed. Addressing himself to the little patient "It has a very bad taste, but do you not think you have resolution enough to drink it down, since it is expected to be useful to you? It is indeed bad tasted stuff, still I think you could take it.

The child made an effort and drank it down.

The address of the surgeon might be much admired by the parent, who, having no control over his child, was forced to resort to artifice to procure a benefit for him; but how is it in a moral point of view? Is the child to infer from this treatment that those who profess to be his best friends, are ready to impose upon his credulity whenever they may chance to think it will be advantageous to him to be deceived? From the example of his parents is he to infer that there is no wrong in misrepresentation and deception?

Let every reflecting parent contrast the conduct of the surgeon with the by-stander in the anecdote, and if I mistake not he will find himself confirmed in the belief that a conscientious, manly, undeviating adherence to truth should be inculcated by precept, and especially by example.

#### Geography.

MARY.—Well George have you been thinking about the obliquity of the sun's rays since our last interview?

GEORGE.—Yes; and though I did not then understand you when you said that this obliquity caused the seasons, I understand it now; I have made the experiment spoken of in the "Inciter" of August, under the head of Astronomy, and have fully satisfied myself how it is that when we, here on the 40 deg. of North latitude have the coldest weather, they on the 40 deg. of South latitude have the hottest, and the contrary. The ball, knitting needle, hoop and candle, may be so managed as to make it plain to the youngest scholar in our school, I should think. But why is that experiment placed under the head of Astronomy? I should have thought it belonged to Geography, as it is about the earth.

M. Your query is a very natural one. Astronomy, is knowledge of the heavenly bodies; Geography, is knowledge of the earth. I told you when we were last together that there is a connexion between all the sciences; Geography is inseparably connected with Astronomy, for though we might measure the distance from one

place to another without reference to any body but the earth, yet when we think of climate, productions, animals, &c. together with the habits and pursuits of men, all dependant on climate, we necessarily think of the relation of our planet to the sun; and when we think of them together, it is rather difficult to tell under which head to class our thoughts.

G. You hinted to me the other day, that there are other causes for the variety of climate besides the direction in which the sun's rays fall upon the earth; you seemed to think it was not best to tell me of them at that time, lest too many new things might confuse my thoughts. I believe there is no danger of that now, for I have made experiments, and thought about them, until my thoughts go further than my reading.

M. I hope you will be careful not to let them go too far ahead of your knowledge; so long as you confine them to plain obvious inferences from the facts which you observe in your experiments, all will do well; if you leave these out of sight you may wander without a guide.—But I will proceed to tell you, or rather lead you to consider some of the other assigned causes of climate. You have noticed no doubt, that vegetables cannot grow without a certain degree of warmth; and that however hot the weather, a thriving vegetable never feels hot.

G. I have always known the first, but I never observed the last.

M. Try it on all the vegetables in the garden and find whether one does not feel colder than another just in proportion as it is of a faster or more luxuriant growth; feel whether a cabbage leaf be not cooler than a sage leaf growing just by it.

G. I will run into the garden and try it now; there is nothing like the time present.

M. Well, how do you find it?

G. Precisely as you said. I touched a few others that were nearly dead; and I felt a sensation of warmth, from some of



them. Do you know the reason of the different degrees of heat in them; and why at the same time, the ground I stood on should feel so warm, and that the spade which was lying in the path should be so hot? All these were within a yard of each other, and I did not perceive that the sun's rays fell on them differently.

M. I know what some philosophers say about it, and to me it looks pretty reasonable; I will tell you, and you can judge for yourself. Vegetables are found to consist principally of water and gasses, or air; these are supposed to enter through the roots and leaves, and to be changed, so as to assimilate with, or become a part of the plant. Heat, or Caloric, as the chemists term it, is necessary for this change, and it is believed to unite with the other materials, and become insensible in the forming; or newly formed body. This may seem strange to you, but you do not see clear water, nor can you discover the pure air we breathe, or the impure air which is found in wells, in the plant, and yet they are all there.

G. Then I suppose the philosophers you speak of, would say that the heat which falls on a vegetable, is taken up, and concealed in it; I wonder if this is not the latent heat I was reading about the other day.

M. No doubt it is heat in the same state; all the heat in any body, which is not perceivable by the senses, is called latent, which means hidden, or concealed. In other words, it is the heat necessary to make it just such a body as it is. If this be so, that is, if plants take a portion of the hot rays which fall upon them, and render them insensible, which do you think would be the warmest, a district where the earth is covered with vegetation, or one where it is bare clay, sand or rocks?

G. The bare country to be sure, if the sun's rays fell in the same direction on both. I have heard that it is much hotter in the great desert in Africa, than in the same latitudes in South America. Does vegetation flourish in that part of South America?

M. It is said that in some parts, it is very luxuriant.

G. I am very much pleased with this conversation, it is so satisfactory to be able to account for every thing. I know all about climates now, and shall never be at a loss again.

M. You had better not be too sure of that, and spare yourself disappointment. Older, and more experienced persons than you find it difficult to account for the differences which are observed in climate. Our situations with regard to the sun; the state of the soil and its productions, together with vicinity to large bodies of water, are general criterions of climate, but they will not account for all the varieties. We may well imagine there are many causes in operation of which men are yet ignorant.

I do not wish you to reject plain reasonings from any facts, but would caution you against hasty conclusions, drawn from the assumption that you know all the facts in the case; or from forming conclusions from too small a number of facts; the first is called dogmatizing; the last theorizing. I consider them both great impediments in the way of getting useful knowledge.

We have talked on the subject of Geography in a way that I think will prepare your mind to be interested with the study of it from books and maps. Do not be discouraged with the new words you meet in this, or any other science; if you are careful to ascertain their meaning, to get a clear idea of that which they represent, you will not find it difficult to remember them; when you see the word, that which it stands for will come into your mind; or when you think of the thing you will remember the name. For example, a cape is a point of land running into the water. A Bay, is water running into the land; if you associate these two names, in your mind with that to which they belong, the sight or sound of the words will be accompanied with the image of the things of which they are the names; or when you see the picture of land running into the water, or think of it, you will remember

that Cape is the name. The same of Bay, and every other word if you do not neglect to make an association between the thing and the name.

You will find Geography a very pleasing study, and it will prove very useful too, but you will do well to pursue it with reference always to the place where you are; that is think of places as being North or South, East or West of you; colder or hotter; more or less productive; the inhabitants more or less industrious, refined etc. than those of your own neighborhood; in a word make your own location a kind of rallying point to which you bring every thing, a measure or test by which to try and compare every thing about which you read.

### Zoology.

Next to the horse, the cow is the animal which men rate at the highest price in civilized life. It would be very difficult to decide which is most serviceable among domestic creatures; the horse, the cow, the sheep and the hog all have strong claims on man for the benefits they render him. If he must continue his present mode of living, he cannot get along without all of them. Until he is willing to do without the luxuries of ham, beef steak, cheese, butter and milk; until he learns to go bare-footed, or finds a substitute for leather, and until he learns to transport himself and his burdens from one place to another, by his own exertions, he will have use for them all; and as little as he should do in return, is to make them comfortable. The man who feels no kindness toward the animal from whom he is receiving, or expects to receive so much, may do well to distrust himself, so far as to examine into the cause of his apathy. He would find perhaps that he is not so prone to sympathy, as he is to claim sympathy from others.

The usefulness of the cow is well known, for the beef which is served up to us in so many ways, our rich cheese, delicious butter and nourishing draughts of milk, we are indebted to the cow; and how would we be shod without her aid?

Her hair, horns, hoofs and bones are all brought into use.

This animal is common every where, where there is civilization; and though there are many varieties of cattle in different countries, and even in the same country, they are all supposed to proceed originally from the same stock. This stock is the Bison, or wild bull of Poland and Lithuania. In his native state, the Bison is much larger than domestic cattle are, is heavier before in proportion to his hinder parts, than they, and his hair is much longer especially on his neck and shoulders; it is of a rusty dark brown and is shaggy. His horns are short, pointed and very strong; his eyes are fiery and fierce, and his whole aspect savage and gloomy. Very few animals surpass him in strength, and under certain circumstances he is a fearful enemy.

The Buffalo of America, answers the description of the Bison, and is probably the same animal, somewhat changed by climate and food. They are yet to be seen on the far west prairies feeding in droves of a thousand. Some persons who have been there, say that the appearance of one man will put a whole drove to flight, and that when they all run together, it causes a tremulous motion of the earth for some distance, the noise made by their trampling, resembles thunder.

It is uncertain what is the natural age of the cow; few, however are permitted to live to the age of twenty years.

### Astronomy.

JANE.—How have you come on with your astronomy? I suppose you have thought about it since our last interview.

CHARLES.—Yes indeed; I have thought of little else, and the positions and motions of the earth seem so plain to me, that I believe I shall never forget how they are. Now that my ideas of our relation to the sun are clear, and familiar, I should like, if you think proper, to hear something about the moon. It is different from the other heavenly bodies; sometimes it is in the East in the evening, at other time

in the West; at sometimes it is quite round, at others, it makes only part of a circle; and then again it cannot be seen at all. Can you explain to me the cause or causes of these different appearances?

J. I can put you in a way to explain them to yourself, and that will be better. Bring your ball and knitting needle. You say you have the idea clearly, that if you take the ball once around the candle, it represents the earth's annual revolution around the sun. Place the stand with the candle on it, in the middle of the room. Suspend the ball in your left hand so that it will be as high as the flame; walk around the candle until you come to this place again. Your earth has made an annual revolution. Now take this small ball and hold it above your right hand, by the pin which I have stuck in it. Hold it so that it, the large ball, and the candle shall be level and in a straight line. I wish you to walk around the candle as you did before, holding the large ball precisely as you did then, and while you are doing so, pass the ball in your right hand, thirteen times around the one in your left. To do it with precision, you should have a ring chalked on the floor, to walk on; this would keep you the proper distance from the candle. This ring should be divided into thirteen equal parts, that you may know how far you should walk, while the smaller ball is making a revolution round the large one; with these preparations, if you keep your left arm bent to a right angle at the elbow, you can keep the small ball at equal distances from the large one, in every part of its thirteen revolutions around it.

C. I can do that another time when I am alone; I shall spare no pains to do it rightly; but I should like you to tell me what this experiment has to do with the changing appearances of the moon. Will you give me a first idea?

J. It is not the right way to make the application before the experiment is perfected, but I know you will not neglect to complete it, and so I will do what you require of me.

The moon is known to make thirteen revolutions round the earth in a year, and hence if you call the large ball Earth, and the small one Moon, the motions you will give them, when you learn how to do it with precision, will truly represent the movements of those two bodies as they travel together around the sun.

I may now tell you that the moon is believed to be a dark body, and that the light which it sends to us, is part of the rays which fall from the sun upon it. You know before we lighted the candle, we could not see the objects in the room, nor even the walls; this was because they are not luminous, that is they have no light to give out; but as soon as the candle was brought in we could see them all. The rays of light from the candle, fall upon them, and are sent from them to our eyes; they are said to throw off, or reflect a part of the light which goes directly from the candle to them.

C. I see that what you say is true; I have noticed it before, but I do not understand it.

J. We will talk of reflected light, at some future time; it belongs to a science called Optics. It is not necessary to our present enquiries that you should examine into the cause of it now; let it suffice that you observe the fact that light is reflected. Observe in particular, whether any is reflected from the balls you have in your hands.

C. I have observed that already; I could not see them if no light came from them to my eye; and I perceive that about one half of each ball, is much more enlightened than the other half, but I cannot tell why I can see the other half at all, for no rays from the candle fall on it.

J. None indeed. Some reflected rays from the wall are thrown on the shaded, or dark sides, which enable you to see them when near you. You could not see them, without additional light, if they were removed to some distance, though you could if you were on the enlightened side of them.



C. Let me try if I cannot make something of this. Now when I hold my little moon nearly behind my little earth, the side of it next to the earth is enlightened. Would not the people on the side of the earth next to the moon, see a full moon?

J. Undoubtedly they would. And now let me hear if you can tell what they would see if you change the position of the moon, so as to place it nearly in a line between your earth and sun.

C. Taking into consideration the distance from the earth to the moon, I should suppose they would see nothing, I observe that I do not see the ball so distinctly, even at this short distance. I will venture the opinion that this is the relative positions of the three bodies when we have no moon.

J. You are right, and I doubt not with your industrious habit of examining things, you will be able, while revolving your balls between those two points, to account for all the different shapes of the moon, called the moon's phases.

C. I am beforehand with you; I took notice as I was moving the moon from one place to the other, that the people on the earth would see less and less of the enlightened part, until at last it would all be turned from them. I can manage this nicely I dare say. But what is the reason you did not direct me to hold the two balls so that they and the candle would be in a straight line? Would not that shew the full, and dark moon, better than when they do not make an exact straight line?

J. Try it and see for yourself.

C. It does not do at all; for now when the moon is directly behind the earth, no light from the candle or sun falls on it; and now that the moon is in a straight line between the earth and the sun, no light passes from the sun to the earth, and of course the people on the earth could not see the sun.

J. Well and what should we call that?

C. Why an eclipse I really believe! Let me see; the sun is now shining upon the earth; the moon is going on in its orbit, after this manner; now one edge of

the moon comes in between the sun and earth, now more and more, and now it stops all the rays; I have no doubt but this is a total eclipse of the sun.

I will now try it on the other side. Precisely the same result; here we have a total eclipse of the moon. Well I am delighted with this explanation; but I should think we ought to have twenty-six eclipses every year, for as the moon goes thirteen times round the sun, it will be thirteen times between the earth and sun, and as often behind the earth from the sun. Why have we not thirteen solar, and thirteen lunar eclipses, (I believe these are the names they call them by,) every year, and why are they not total?

J. Because it is but seldom that these three bodies are in a direct line; whenever they are it causes a total eclipse of sun or moon; when portions of them, only, are in straight lines, it is the cause of a partial eclipse.

The reason why two eclipses do not occur every month, is because, in the language of astronomers, "the plane of the moon's and the earth's orbit do not coincide;" which means, that they are not on the same level; but this is rather difficult to explain to you now; or rather we have talked long enough for the present.

#### How a Fly walks under the Ceiling.

ELIZA.—Mother it seems very strange to me that flies walk under the ceiling and up the panes of glass, do you know any thing about it?

MOTHER.—Did you ever take notice that the bell glass sticks tightly to the floor of the air pump when the air is exhausted?

E. Yes but I do not know why it does so?

M. Although we feel nothing of the weight of the air, yet the atmosphere above and around us, presses as much against us as thirty-two feet deep of water would do. Now if you were to put a tumbler at the bottom of a river thirty-two feet deep, if it were full of water, the glass would not be more liable to break than if it were only one foot under water, for the

water at the bottom on the outside of the glass, has to bear the weight of all that which is above it, and that inside of it supports the glass, while the glass supports the water above it; so that the glass does nothing but keep the water inside and outside of it apart. Do you see that this has no tendency to break the glass?

E. Yes I believe the water inside will press upwards against the bottom of the tumbler, just as hard, as that on the outside presses downwards upon it; if it did not, the tumbler would be forced into the ground at the bottom of the river.

M. Well, what do you suppose would happen if an empty tumbler could be placed with the top downwards, at the bottom of a river?

E. Why it would sink into the ground, or be smashed by the weight of the water above it.

M. This is precisely the situation of the bell glass, or air pump receiver; it fits closely to the floor of the pump, and the air is exhausted or pumped out of it, so that it has to bear the weight of the atmosphere on the outside without any thing to press against it from the inside. It is this atmospheric pressure which causes it to adhere or stick so closely.

E. I understand what the air pump does, very well now, but has this any thing to do with flies walking on glass?

M. Yes; the legs and feet of flies have a kind of air pump contrivance in them, by which they hold themselves on the ceiling in the same way the receiver is confined on the air pump.

E. Oh! mother I should like to examine them it would be very curious I dare say, and then I should know how an air pump works; if I catch a fly, will you show me how he pumps himself fast to the ceiling?

M. I cannot my dear, it is so small, that we could not see it without a solar microscope to increase its size thousands of times. In such cases as this, where you have not the proper instruments, you will have to depend upon others; but never do it when you can help yourself.

## Elementary Principles.

In No 3 an attempt was made to explain elementary principles. I will now write down the names of those which are most common, that is of the simple elements most abundant in the substances you are acquainted with. I will begin with those which are best known to you; they are the bodies called earths. Chemists reckon ten of them, but the rest being little known, I shall mention but four.

Alumine, or pure clay.

Silex, or white flint.

Lime.

Magnesia.

Of the three first the nucleus or ball of the earth is principally formed. When pure, that is, unmixed with other substances they are all four white, and would not be known from each other by an inexperienced person.

Alumine sucks up water readily and forms a tough paste. Silex does not adhere when made wet, and however finely powdered, feels sharp and gritty. Lime has a peculiar smell by which it may be distinguished; it swells and gives out heat when water is put on it. Magnesia is lighter than any of the others, does not form paste with water, and when rubbed between the fingers, has a soft soapy feeling.

The bodies next best known to you are called metals. Gold, silver, copper, lead, tin, iron and zinc are called malleable metals, because they can be spread out under the hammer; arsenic, bismuth, cobalt, chrome, antimony and manganese, are called brittle, because they do not spread out. Mercury is fluid. There are fourteen other metals, but they are rare and little used. The metals have some things in common; they are all heavy bodies, they are all opaque, and they have all some lustre.

There is another class of bodies called alkalies; it contains potash, soda and ammonia.

Besides these, there are several that are not classed with those mentioned, or with

each other; such as carbon, sulphur, phosphorus, oxygen, hydrogen, nitrogen and carbon.

None of these are found pure in nature, but mixed with each other in various proportions. The earths, for example, are seldom found alone, and they are generally colored by some metal, such as iron or manganese. Of late they, and the alkalies, are considered metals, in a very impure or mixed state.

In nature the metals are mixed with each other and with the earths, and mostly combined with sulphur or oxygen; in this state they are called ores. The pure metal is separated from the other substances by heat.

Potash is found in the ashes of wood, weeds, &c, which grow around us; soda, in the ashes of sea-weeds; ammonia is obtained from animal substances.

Carbon is in charcoal; sulphur is found about volcanoes; phosphorous is obtained from bones; Oxygen, hydrogen and nitrogen, exist in various combinations, and in great abundance in an aeriform or gaseous state.

Caloric is that substance, or that property or state of matter, which produces in us the sensation of heat.

#### **Bread Fruit.**

The tree which yields this fruit grows in warm climates, more particularly in the fertile islands of the southern Pacific Ocean. It grows to the height of forty feet, and has a luxuriant foliage.

The wood is used for constructing boats and houses, and for other purposes; cloth is made of the bark; and the leaves serve for towels; but it is most valuable on account of the fruit which is the principal sustenance of the natives through great part of the year. It is a spontaneous growth so they have nothing to do but pluck, cook and eat it.

The bread fruit has the shape of the cocoa nut, and is about nine inches long. It has a green rind or skin, between which and a small core lies the eatable part. This consists of a white mealy pulp, which

inclines to yellow, and becomes juicy when the fruit is mature.

The taste of this fruit depends much upon the manner of cooking it. Prepared in one way, it resembles cake made of flour, milk, eggs, butter and sugar; prepared after another manner, its taste is similar to a boiled potato. The most usual mode of cooking is a kind of baking, where they enclose the fruit in a banana leaf, and surround it with heated stones.

In 1787, George III, King of England sent a vessel to the Society islands for bread fruit plants, to cultivate in the British West Indies. The plants grew finely, and bore fruit in abundance from 1795 until 1801, since when there have been no notices of them.

#### **Not simple enough yet.**

I am now convinced of something I have suspected since the first number of this paper was published, namely that the manner of thinking, or the style of writing in it, or both, are above the capacities of ordinary scholars in ordinary schools. Frequently when I have been preparing an article it has appeared so simple that I have felt repugnance to its insertion; my author pride revolted at the smiles it would excite; all such considerations were, and are foreign to the object I have in view, and all such delicacies improper to be indulged.

I trust, from the manner in which studies are pursued in our school, that the pupils would bear comparison with those of their own attainments, who have been taught differently; they have been introduced to every thing treated of in the "INCITER" at least incidentally, and yet they are not prepared to read the matter of the paper instructively.

Yesterday a class read the article "Old and New ways," in page 22. Some explanations were attempted and some questions asked. With the consent of the class we tried it again this morning, they having in the mean time, applied themselves to the study of it. Some members of the



Class could not give a synopsis of the portions they read, and I requested them to turn to "Scholars from different schools," page 45. This they read with much more spirit and more propriety than they read the other, though they had used exertions to prepare themselves for the first, while it is probable some of them then read the last article for the first time.

"Old and New ways," I had written with care, and as I conceived, with adaptation to the wants of those to whom it was addressed. "Scholars from different schools" is a communication from one of our boys who has not been favoured with means for instructing himself, and withal has written (not by guess, nor with skill, but just in his own way, the only way he could do it,) better than I who fill the station of teacher, and assume the office of writer.

#### **The disposition made of Human Bodies.**

The first account that we have of interment is to be found in the bible. The patriarch Abraham gave the best of reasons for inhumation, namely that he "might bury his dead out of his sight." It is likely, if Sarah's was the first funeral, that it was very simple; whether or not, it is probable it was not long until they were performed with more ceremony.

There have been different ways of disposing of the dead, in different countries, and in different ages of the world. In some places, and at some times we are told that it was the fashion to burn them, collect the ashes and bury it. In others they embalmed them.

There is no embalming done now that we know of; but it is supposed that it was done by taking out the brains and intestines, and putting various spices which had preserving properties, in their places. After this, the body was kept in a strong solution of salt petre, until it was saturated with the salt; next it was wrapt in fine linen and gums. It is said that some bodies were preserved in this manner so as to appear almost as they did when animated.

In very hot climates it is probable that bodies were kept for a long time without embalming; for if the softer parts, such as the brains and intestines were removed, the flesh would become dry and hard with the heat. We are told that many bodies are found in the sands in Egypt, that are supposed to have been there a long time, preserved in this way; some of them have linen around them, and others have no covering.

The bodies preserved in either of these ways are called Mummies, and are accounted great curiosities, by some people. They think it very curious to stand beside persons who probably lived thousands years ago.

There were six mummies lately exhibited in this city; several of the scholars and myself went to see them and were gratified with the sight. I had seen mummies before, but none in so good a state of preservation. Their forms are perfect except that they are somewhat shrunk. The features of some of them are as distinct as they ever could have been, and one of them has part of the sandy hair which once ornamented the head of the wearer. They have spices in them, and are wrapped in many folds of linen. There is no deception in the matter, for in some places the folds of linen are broken and we have an opportunity to see the joints, and the nails of the fingers and toes, all very perfect. In some the limbs or skull are broken, giving the spectators a chance to examine the bones and muscles closely. Some of the mummies appear to have been aged people; they have lost their teeth; others have theirs entire, and they are very white and fine. The only one which has any hair is a small person and seems to have been very handsome, with the exception of two blemishes, an irregularity of hair, or cow lick on the forehead, and a hare lip. They are nearly black. The proprietor shows a number of papyrus leaves which are neatly marked with letters or characters which cannot be deciphered by any person who has yet seen them. These hieroglyphic characters have

been examined by printers of this city who give it as their opinion that they are printed; if the opinion is correct, and the history which the proprietor gives of them be true, the art of printing must have been known in an earlier age of the world than we accord with its invention. The admirers of Dr. Faustus might not like this well, but they may reflect that two men having no knowledge of each other may invent the same thing.

The owner of the mummies here described, says that they were lately dug up near Thebes in Egypt, where they lay in vaults, or Catacombs, two hundred and thirty feet below the surface of the earth.

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### Sugar.

This article, so well known to every one, exists in almost all vegetables. It may be found in the flowers of some; the leaves of some, and the stems and roots of others, contain it in considerable quantities. With the sweet taste of many fruits, children are well acquainted. The beet, carrot, parsnip and other cooked vegetables, are also sweet; this sweet taste in all of them is owing to the sugar which makes a part of each.

The sugar which we have here, is principally obtained from the sugar cane, a plant which grows in warm climates, and which is extensively cultivated in the East and West Indies.

The sugar cane resembles a corn stalk, though much more beautiful. A field of canes in blossom is said to be a splendid sight; and we can easily conceive that it is so when the stalk is of a bright golden colour, the leaves long and pendant, and the top like a plume of white feathers tinged with lilac.

The season for planting the cane is in August. The planters make furrows or trenches along which they lay the stalks. Roots grow out at each joint, and in about a year the stalks which grow out at these roots, are fit for cutting. The leaves are good food for cattle. The stalks are passed between strong iron rollers which press the juice out of them and it is convey-

ed to boilers where some lime is added to take up the oily and acid matter which is in it. Where the lime unites with these matters they float on the top and are skimmed off. After six or seven such boilings the liquid is put into shallow wooden vessels, called coolers; in them it *grains* or *crystallizes*. The part of it which does not *crystallize* is molasses. Thus brown sugar is made. Loaf sugar is nothing but brown sugar put through other refining processes which take from it the coloring matter and other impurities.

The inhabitants of the north-western part of the U. States are supplied with sugar, from the sugar maple tree which grows abundantly in the forests of that section of the country. For a considerable extent in some places, there is scarcely any other timber.

In the month of April they bore holes two or three inches deep into the trees, ten or twelve inches from the ground. Into these holes they insert tubes or spouts, through which the sap passes off into little troughs below. From these troughs it is collected and put into boilers, where the operation is similar to that described with the juice of the sugar cane.

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### COMMUNICATIONS.

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#### The Hornets' Nest.

MR. GILBERT.

I have written this piece to show your young readers, that it is easy to write on any subject that we are acquainted with, if they would undertake it. The following is very simple and all who can read can understand it.

It is about two boys who were one day taking a walk, the one found a hornet's nest, and was at a loss to know what it was.

I see something in the thicket there, said Henry, about the size of a hat, it is fastened to the bushes and there is something flying in and out at the hole, I wonder what it is?

I don't know, said Edward, I see there are comers and goers.

H. We will go and examine it.

E. We can go a little closer, but don't go too near, for I think they are the things we read about the other day, don't you remember the author explained to us their nature, how savage they are when they get disturbed?

H. O yes, I do, I believe he called them hornets.

E. Yes, that is the name. We will stay here a while and watch how they build their nest; we cannot spend our time better here; we ought to know something about them, as well as about other things.

H. Yes; that is true. Don't you see how earnestly they are employed on the surface of their nest?

E. Yes, I have just now been taking notice of that; and another thing, they are continually flying in and out, so that when some go in, others come out; they are in constant motion.

H. Don't they go out to bring something to build their nest?

E. Yes they gather stuff from the surface of wood which stands a long time. They have some kind of glue or liquid which they throw out of their mouth, with this they fasten what they collect together. I have often seen them on old fence rails gathering the moss, or whatever it is, to make their nests.

H. I see the nest is just the color of fence rails. Do you know what they live upon?

E. Yes, they catch flies and other insects, did you never see one like them catching flies?

H. I remember now, I saw one once darting on flies, but it took it some time before it could catch one.

E. A fly is too active for a hornet, but when they are not on their guard he can catch them.

H. Have not animals mind? it appears so, because we can see them employed in many things, and every kind knows its own business and how to make a living.

E. It is supposed some have; you can see it in many cases. A hawk, or crow, for instance, will stay on a tree under

which there are cows, sheep and other animals; but as soon as a man with a gun comes it takes to flight. And in many other things you can see that they have some portion of mind, especially among quadrupeds.

H. A dog can be taught to perform many things.

E. Yes, he can be taught to be useful to man;—to fetch cattle from the field, to watch the house by night, &c.

H. I believe the spaniel species is the most easily taught, I have often seen them do odd tricks.

E. Some brutes are very useful to man; but whether useful or not, we ought not to hurt, or kill them unnecessarily.

H. Yes, but that is not always the case, we see many lives taken unnecessarily.

E. I can't see any pleasure in taking the lives of things that do no harm, and are of no use when killed. I don't see how any person can take pleasure in it. If you or I were to kill a bird with a stone, and then think about it; that it never injured us, and perhaps has young ones, and that they must now suffer, that it was deprived of the pleasure of living, by us, what pleasure could we have in it?

H. This puts me in mind of seeing a boy killing bees, who had collected together sweets, and another boy on seeing him said, "why do you kill those bees? they are fond of life too."

E. I expect he thought about it and saw that the other boy was right. We will now go home, or night will overtake us, and remember that it is wrong to give pain to brutes unnecessarily if we can avoid it.

R.

#### Composition.

JOHN.—How tired I am of writing composition. I can't think what to write about.

WILLIAM.—There is always something or other to write about, you could write a description of a cow, a horse, or a sheep, you could write about an apple tree. It grows out of the ground and bears blossoms, the blossoms turn to apples, some



of the apples are ground and when they are pressed cider runs out. Some of the cider is kept till it gets sour, then it is called vinegar. Some of the apples are put under ground to preserve them, that they may be had in winter.

Could you not write such a simple thing as this.

J. Yes, I think I can, and I will try if I can give a description of a sheep.

A sheep is an animal, it has four legs, it is hoofed, its hoofs are divided, it is a very gentle animal, it is easily frightened, it yields wool of which some of our clothes are made, it is sheared in the beginning of summer, its flesh we use for food, the skin is tanned and made into leather.

W. Very well, I thought you could compose pretty well, if you only knew it.

J. Now I am in good spirits to write composition, and if I get along pretty well, I will show you some of it the next time we meet.

F.

#### New-York.

My residence at present, is in a part of the country, remarkable neither for beauty of scenery, fertility of soil, nor an intelligent population, and near thirty miles from any town of importance; consequently a description of it would contain but little that would be either interesting or instructive. I should choose therefore if "Ann" is willing, to give some account of where I have lived, rather than "of the place where I now live."

New-York is situated on the South side of Manhattan Island, at the junction of the Hudson and East rivers. The Island is about ten miles in length, from North to South, and from three to four in breadth. It contains many country seats, the summer residences of such of the citizens, as can afford to spend the season in idleness, or can oblige others to toil for them while they are relieved from the din and bustle of the town.

The city is among the first in the world in commercial importance, and the first in the Union in point of population, in 1839 it amounted to 214,000. Its harbor is ex-

cellent, and open at all seasons of the year. The streets are very irregular; in many places they are broad, clean and elegant, though most generally they are narrow and crooked, and in many places mean and filthy, and appear only as the abodes of poverty and wretchedness, presenting a striking contrast with the more wealthy parts.

Its markets are well supplied with provisions, brought principally from the northern and western parts of the state; the sandy soil of New Jersey also supplies many of its luxuries, such as peaches, melons, sweet potatoes, &c. Its fish market is probably the best in the world. It contains many public buildings, the most conspicuous of which are the City Hall and Exchange, the former of which is a spacious edifice; it cost half a million of dollars. There are many schools, both private and public, the latter are free to all, and the expenses paid by common tax, but they are not at present so conducted as to render them of much utility to those whom they profess to benefit. Much interest has of late been evinced by many benevolent citizens and influential men; and much zeal manifested on behalf of schools, that shall be so conducted, as to enable them to afford instruction to those who are at present destitute, and by so doing to arrest the progress of vice and pauperism, which they conceive to be increasing to an alarming extent.

It abounds in churches occupied by various professions. The places of amusement are also numerous. It contains three theatres; a number of Zoological and Botanical gardens; and the museums, containing perhaps as great a collection of the wonders of nature and art as is to be found upon the western continent.

The most pleasant of the public walks is the Battery, an enclosure of about half a mile in circuit, situated at the immediate junction of the two rivers, planted with trees and laid out in gravelled walks; this affords a delightful retreat after a sultry summer's day; the refreshing breezes from the ocean, together with its fine pros-

pect of broad blue water and sailing vessels, contrasted with the lively green of the adjacent country, unite to render it peculiarly pleasant to the pent up citizens of New-York.

SARAH.

#### Morning.

The valley is shrouded in mist, and along the eastern part of the horizon a few faint streaks of red appear.

The smoke begins to curl from the chimney tops of the cottages, whose white walls are almost hidden from view by the green vines that twine over them, and the fruit trees which are white with sweet-scented blossoms, and promise a plentiful supply of fruit the succeeding autumn. The little birds are rising from their rest in the boughs, and are beginning to sing in the green trees and hedges, and some of them are employed in building nests in the slender branches.

The plough-boy is seen beginning to turn over the green sod, which is bespotted with the sweet smelling clover, and the young lambs are skipping over the green grass, that glistens with the sparkling dew.

Every living thing starts into animation with new vigor, after their refreshing rest, even the little bees are humming over the clover tops and collecting the sweets they afford for a plentiful winter store.

The little rivulet goes murmuring through the green meadow whose flowers dip their leaves in its clear water, where the little fish are already beginning to sport in the sun's first beams. F. F.

#### Time.

Wave after wave, as rivers flow,  
And to the ocean run,  
So minutes after minutes go,  
And are forever gone.

Oh, who would then throw time away,  
And trifle to his cost?  
My hours, in idle childish play,  
Shall never more be lost.

Then let us never think of play,  
But let our study be;

To seek for knowledge every day,  
From idle habits free.

ELMIRA.

#### SELECTIONS.

Children cannot collect honey from flowers, it is true, but they can collect that which is as useful to them, as honey is to the bee.

Should they resolve like the prudent industrious "Busy," to depend on their own exertion for getting every thing they want, they will not only have abundance for themselves, but that abundance may become a part of the common stock. This is strictly true however of all the useful knowledge they gain; if they are at all benevolent, they will make it well nigh as useful to others, as to themselves.

While they are thus employed, they will have little leisure and less inclination, to go with thoughtless Velvets among mere butterflies.—ED.

#### The Two Bees.

There were two bees, one called Velvet and the other Busy. Velvet had fine gauze wings, and a black body marked with stripes of bright yellow; but though she was so pretty, she was not good; she was lazy and loved play, and flying about from flower to flower; she ate all the honey she gathered, and brought home none to increase the common store.

Busy, who was only a plain brown bee, was busy all the day; she brought home plenty of honey and wax, and was the most industrious bee in the whole nest. One fine spring day, Velvet and Busy left their nest in the wood, to seek for honey, (for they were wild bees, and did not live in a hive, but in the hollow branch of a tree.) The fields were full of daisies and cowslips, the wild roses and honeysuckles bloomed in the hedges, the sky was serene, and the birds sung from every green bush.

Busy sought the fresh opened blossoms of the cowslips, and was soon intent on the labours of the day: whilst Velvet—idle Velvet! flew from flower to flower, tasting the honey from each, and humming

gaily as she went. She enjoyed herself for some time in this manner; but like most idle people, she grew weary and said to Busy—"I hate daisies and cowslips: leave this dull meadow and fly with me into yonder garden; the sun shines warmer there, and the borders of the garden are gay with full blown-roses, and pinks, and lilacs."

"There is richer and sweeter honey in these cowslip-bells," said Busy, "than among the roses and pinks you admire so much; and if we spend our time in flying about, we shall bring home a small store of honey, and shall perish with hunger when the cold weather returns."

"There will be plenty for us," said careless Velvet.

"No," said Busy; "I will never eat the fruits of another's labour, when I am able to work for myself."

"You may do just as you please," said Velvet; "for my part, I shall not waste all the fine weather in working. Look at the butterflies; they do nothing but enjoy themselves, fluttering among the flowers and chasing one another—they are happy creatures, and I shall go and play with them;" and away flew this idle bee to the garden, where the butterflies were gaily sporting. But the butterflies showed no regard for Velvet, and would not play with her; and she soon grew tired of watching them, and looking at the brilliant colours in their gay wings as they fluttered past her; so she left them, and flew away over the garden.

At last she came to an apple tree in full bloom, whose boughs overhung a pond of clear water. "Ah!" said Velvet, "how sweet these orchards are! there is no tree like this in the meadow; how glad I am I left Busy and flew hither!"

The water was so clear in the pond, that Velvet saw all the shadows of the blossoms that hung over it, and her own form reflected among them; just at that instant, while Velvet was looking at her own image in the water, a sudden breeze shook the boughs of the tree so roughly, that it scattered the blossoms on which

she was resting; and not being on her guard, she fell into the water, and was borne by the motion of the wind into the middle of the pond.

What would silly Velvet now have given, had she but taken the advice of prudent Busy, and stayed in the fields. She strove to raise her wings, and fly from the surface of the water, but they were so clogged and heavy with wet, that she had no power to move them.

For some time Velvet floated on the water; the wind wafted her more than once to the very edge of the pond; but alas! she could not get out, and before night came on, poor Velvet was drowned.

Now I suppose you would like to know what became of Busy. She gathered much store of honey and wax that day; but she did not forget her companion, and wondered what had become of Velvet; she thought she would return at night to the nest in the wood; but night came and though all the other bees came back from their work, Velvet did not.

Busy was grieved, for she loved Velvet in spite of her idle ways; and she said, (for Busy was a good bee,) "I will go into the garden and look for Velvet, for I fear some harm has befallen her; but perhaps she was tired with wandering last night, and has fallen asleep in the flowers of a foxglove or lily."

Then Busy sought for Velvet among the blossoms in the garden; and she asked all the wild bees she met, if they had seen Velvet. For a long time she could hear no tidings of her; till at last one said, "I was flying over the pond by yonder apple-tree, and I saw a drowned bee floating on the water."

Then Busy went to the pond, and the first thing she saw was poor Velvet—quite dead.

"Ah! silly Velvet!" said Busy, "why did you leave me, to go and play with the butterflies in the garden? If you had not been so idle, you would not have met with so sad an end."

My little readers, I hope you will take example from the story you have just read,

and,



"Like the little busy bee,  
Improve each shining hour,  
And gather honey all the day  
From every opening flower."

I think our readers will not be likely to take fables for truth. The only use which I can conceive a fable to have, is to arouse the mind, as it were, and set it to work with greater activity than it exhibits, without such first excitement.

The following fable shows the difference between the aggressor and the avenger, very distinctly. We cannot but admire the affection of the dog, however we might be disposed to wish that he had contrived some way to spare one life; while he was preserving another.

Some persons say, that in the present state of society, if a man were nicely honest, he would not get along, that he must discover who are rogues and fools, and treat them accordingly. They would justify the dog in deceiving the wolf to his destruction. Just let us think whether Trusty's moral character would not have stood more fair, if he had said to the wolf, "I live in the same house with that babe; the treatment I receive from the family would be illy repaid, were I to look on, while any member of it was being injured. You had better consider what you can do with me before you attack the infant; rely on it, I shall be its protector by day and by night; you must destroy me ere you hurt it.—Ed.

#### The Wolf and the Dog.

"Where are you going in such haste, friend?" said Trusty the Shepherd's dog, to a great wolf that was jogging along the same road. "If I was sure you would not betray my secret," said the wolf with a sly leer, "I would let you know."

"You need not fear me; I shall tell no one a word of the matter," said Trusty. "Well then," said the wolf; "you must know, as I was prowling round yonder cottage, I saw the peasant's wife put a fine baby into the cradle, and heard her say, 'lay still, my darling, and go to sleep, while I go down to the village to buy

bread for your father's supper. As soon as the babe is asleep, I shall go and fetch it; it is fair and fat, and will make a nice supper for me and my cubs."

"Then," said Trusty, "I would advise you to wait a little, for I saw the baby's mother step into the next house to speak to a neighbor;—take care lest you are seen."

The wolf thanked the dog for his good advice, for he did not know that the baby belonged to Trusty's master; and he said he would take heed and keep close.

Then Trusty ran home with all the speed he could. The door was ajar, and the innocent baby was fast asleep in the cradle; so he laid down on the mat behind the door, and listened for the coming of the wolf. It was not long before he heard the tread of the wolf's feet on the gravel path, and in another minute the savage beast was in the room and stealing with cautious steps towards the cradle; but just as he was preparing to seize the poor baby, Trusty sprang upon him, and after a severe struggle, laid him dead on the floor.

The first object the mother saw on her return was the wolf bathed in blood at the foot of the cradle, while the infant, unhurt, lay soundly sleeping on its little pillow, and faithful Trusty watching its peaceful slumbers.

The grateful mother fondly caressed the preserver of her infant; and calling together all her neighbors, made them be witness to Trusty's courage and fidelity. From that time he became a favorite with the whole family; he had his share in all the meals, and a warm nook in the chimney corner, and passed a long and happy life.

The great wall of China is conducted over the summit of high mountains, across deep vallies and over wide rivers by means of arches. Its extent is computed at 1500 miles; in some parts it is 25 feet in height, and at the top 26 feet thick.

ODD INTIMACY.—A duel was lately fought at New Orleans, between two *intimate friends*, one of whom received a ball in his forehead and fell dead instantly.

The Little Bird's Complaint to his Mistress.

Here in my wiry prison, where I sing  
And think of sweet green woods, and long to fly;  
Unable once to stretch my feeble wing,  
Or wave my feathers through the clear blue sky.

Day after day the self same things I see,  
The cold white ceiling, and this wiry house;  
Ah! how unlike my healthy native tree,  
Rock'd by the winds that whistled thro' the boughs.

Mild spring returning, strews the ground with flowers,  
And hangs sweet May-buds on the hedges gay;  
But no warm sunshine cheers my gloomy hours,  
Nor kind companion twitters on the spray!

Oh! how I long to stretch my weary wings,  
And fly away as far as I can see;  
And from the topmost bough, where robin sings,  
Pour my wild songs, and be as blithe as he.

Why was I taken from the waving nest?  
From flow'ry fields, wide woods and hedges green,  
Torn from my tender mother's downy breast,  
In this sad prison-house to die unseen!

Why must I hear in summer evenings fine,  
A thousand happier birds in merry choirs?  
And I, poor lonely I, forbid to join,  
Cag'd by these wooden walls and golden wires.

Kind mistress come, with gentle pitying hand,  
Unbar my prison door and set me free;  
Then, on the white thorn bush I'll take my stand,  
And sing sweet songs to freedom and to thee.

The mistresses reply to the bird, is not so good poetry or reasoning. After enumerating her kind care for her favorite captive, (as slave holders do,) she affects to anticipate great suffering for her prisoner, should it now be liberated. "She says, "Fierce hawks would chase thee tumbling through the skies, or crouching pussy mark thee for her prey."

Sad on the lonely blackthorn wouldst thou sit,  
Thy mournful song unpitied and unheard,  
And when the wintry wind and driving sleet,  
Came sweeping o'er, they'd kill my pretty bird.

Not a word like "What should I do without thee;" the real burthen of the song. Poets, with the prettiuess of their art, coax us to dispense with truth; and even sometimes to receive a little error at their hands.

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✍ Forward names of subscribers, with the State. County and Post Office legibly written.